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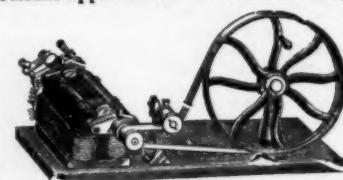


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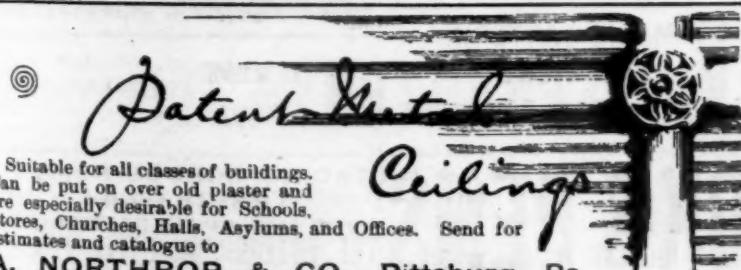
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A Weekly Journal of Education.

Vol. XLIII.

For the Week Ending December 5.

No 21.

AMOS M. KELLOGG, *{* EDITORS.  
JEROME ALLEN,

The business department of THE JOURNAL is on page 454.

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HE question is becoming altogether more frequent in letters, "How shall I raise the standard of education in this town?" It is a question that is on the lips of very many superintendents of smaller places, places with ten to fifty teachers; the larger cities give up the problem.

There must be an elevation of public sentiment; for, even if the teacher succeeds in lifting the teachers, the public may not comprehend the better service rendered and call for the appointment of a routine man; then all labor is lost. An educational association is indispensable where the principal can set forth the newer ideas, and gather around him men who will aid their introduction into the schools.

There must be meetings of the teachers, so that a comprehension of what is aimed at may be clearly gained by the assistants. This is often neglected. No man can accomplish anything worth speaking of if he has not the hearty co-operation of his teachers. They will have their difficulties and will desire to tell them, and will need encouragement.

There is another element that must be consulted—the pupils. A young lady had taken paper-folding into the class; the school board objected, saying; "No time; give more attention to reading and spelling;" but the children liked the occupation and besought permission to have it continued, and it was permitted. The children can be inspired to believe that better ways exist; that the teacher knows them.

At all events, the principal or superintendent who feels "the educational world does move," should not return to the routine that has been supposed to educate because all in town knew of nothing better.

Shall a State Association be an experience meeting, a hortatory affair, a cut-and-dried affair, a summer school affair, a plum pudding affair—that is, all sorts of an affair of "papers"? Sometimes it proposes the question, "Should we have normal schools?" as though this was an open question! This is an example of many subjects that are put before teachers who, after traveling a good many miles, are wont to say: "The best thing was shaking hands with \_\_\_\_\_ and \_\_\_\_\_."

In our opinion the time has come for cutting loose from the old drag-net idea; for electing delegates by county associations, who shall meet and work on a definite plan, leaving "papers" and lectures, and addresses severely alone, except from experts who may be called on to throw light on certain points.

One good thing about the Massachusetts Educational Association was that the members proposed a line of action. In general the State and National associations content themselves with letting off educational steam, resembling the locomotive that stands on the track. The M. E. A. proposes to try to bring one miserable scheme that prevails in the state to an end—we mean that of leaving each school committee in each town to determine whether an applicant is fit to teach or not. It asks for a central authority. Let the M. E. A. go at this matter somewhat desperately. It would be better to determine to forego the letting off of educational steam until this most desirable end was reached—if need be. What we say to one we say to all, "Good friends, aim at some progressive action and cut short the speeches."

The too general method of electing educational officers on party issues often turns good officers out just at the time when they are doing their best work. An illustration of this fact is found in the defeat of State Superintendent Sabin of Iowa, when he is better able, than any other citizen of that state, to direct and guide in preparation for the World's Fair. Papers of all parties agree that he has made an officer altogether satisfactory to all voters. The *Davenport Democrat* says that "not a Democratic paper in Iowa has said aught against him, as the head of the educational system, or as a citizen of the purest personal character." The *Iowa School Journal* says that "among the bright and capable school men in Iowa no one of them is so well fitted by practical wisdom, effective industry, and high character, to be most serviceable to Iowa at this juncture." We have known Mr. Sabin many years, and we declare that these words are eminently deserved. We have given him our hearty support, and we shall give his successor the same, as far as he does what we believe to be right, but we deeply regret that Mr. Sabin's work in Iowa, as a state official, will soon come to an end.

It is quite apparent that the time will come when the political superintendent will find his occupation gone. There are fewer political superintendents in New England than in any other part of the country. Men there are usually required to know education; to know it, not only so they can "run" a school system, but to know the principles of education and the means to work thus artistically.

It will be remembered that once the notion prevailed extensively that a clergyman was just the man to put in charge of a school—especially a private school, and most especially of a girls' school; it was supposed his moral influence would outbalance any shortcoming that might exist in scholarship. But the clergyman's day in the schools is over. A similar result will be noticed in the case of the political superintendent.

Mrs. Alice Freeman Palmer would put character first, scholarship next, and professional ability last in estimating the teacher. It would seem from this that under "character" she must put what in general goes under the name of interest in the welfare of others. Now "professional ability" means an acquaintance with a systematic plan for realizing our interest in the education of children. The defect in Mrs. Freeman's scheme lies in the feeling that some one thing must come first, and some other thing last; we should take them all together. But if there must be a first, we would put it something like this: (1) A character in which there is a desire to be of the highest benefit to others, with a consciousness of powers to realize this desire and (2) a scholarship that brings depth and breadth to these powers.

The political campaign in New York state may lose us the services of a capital state superintendent of schools. Judge Draper has surprised everybody, not only in the efficiency with which he has carried on the work of his office, but in the efforts for advance movement. He recognized what a good many nurtured in the air of school-rooms are ready to deny—that education is a growing science, subject to thought and discovery. Having a cast of mind that led him to look largely and broadly at things, Mr. Draper at once set about improving the educational matters of the Empire state. But it is a big affair; he has only partially accomplished what is needed and should stay in office ten years more to work out the problem more perfectly.

"How few there are that can assist me," said a superintendent of a mission school lately. He could assemble around him a hundred boys and girls, not real bad boys either; bright, active, but not self-governed boys. An assistant would sit down with a half dozen, perfectly helpless, unable to talk to them or interest them. The next Sunday the half dozen had dwindled to three, the next to one!

"It is because there is so little knowledge of human nature," he replies to a question. The art of teaching is an art; it is, when well done, a difficult art—that is, one that requires large mental powers. The real teacher is not the nobody he is generally credited with being. But then real teachers are not easy to find.

The good that the late Charles Pratt did will live long, long after him. Pratt institute is destined to be a force even beyond Cooper institute, because it takes hold of children—humanity in its formative stage. It is to be a fountain for developing ideas of education never before conceived of. Hundreds of towns have been wanting to introduce manual training; Glen Cove is one of them. The executors of Mr. Charles Pratt's estate have agreed to contribute \$20,000 to the building fund of the board of education of Glen Cove on condition that the people raise \$35,000. Of this amount \$25,000 has already been secured. They also offer to contribute \$1,000 a year for five years, if the board will raise \$1,000, and introduce into the new school a course of manual training.

There is within every mind a divine ideal, the type after which he was created, the germs of a perfect person, and it is the office of education to favor and direct these germs.—*Kant.*

## Editorial Correspondence.

The gathering at the Massachusetts Teachers' Association at the morning session was not large, remembering that Boston and its suburbs could easily supply a thousand teachers. Men ranking high educationally were to be seen at various points: J. W. Dickinson, secretary to the State Board of Education, an enlightened expounder of Pestalozzian doctrines; B. F. Tweed, a co-laborer with Horace Mann (he tells us that the present Teachers' Association was gotten up to keep Horace Mann out, and he was not to be allowed to be a member!); A. P. Stone so long at the head of the Springfield schools, the predecessor of the philosophic Balliet; Messrs. Edson, Prince, Martin, and Walton, agents of the State Board of Education, the latter a firm believer in the Quincy methods, when it was by no means popular to be so; W. A. Mowry, superintendent of the Salem schools, doing a work as head of the Martha's Vineyard summer schools that will be felt a half century; young Paul Hanus from Harvard university, evidently to be one of the educational forces of the country; Principals Boyden, Russell, Hagar, and Greenough, representing the normal schools not only but advanced pedagogic thought; Supts. Meleney, Dutton, Huling, and many others, types of the superintendent raised to office because of his merit, and not through the political "pulls;" Principals King, Clapp, and Pritchard, and many others from the Boston schools (they call them "masters" here), the former an invaluable laborer in the Empire state, every year, at the famous Glens Falls summer school:—in fact the assemblage was really a brilliant one viewed from the educational stand-point.

The utterances were decidedly of the "advanced" order or type; there was no re-vamping of educational platitudes, such as "the early education of the child is most important" etc., etc. Some things seemed to be taken for granted.

Three lectures filled the forenoon. In the afternoon, Miss Brassill opened the exercises by a neat talk on the "Study of Nature," and then came a discussion, a most notable point being made by Mr. Clapp (Geo. Putnam School, Boston), that in the study of nature the object should be knowledge and not to provide a language lesson. He said the "pouring in process" was being followed when a bright pupil made a statement (as that "this leaf has five ribs") and the dull one went to his seat and copied it down. The dull one must put down what he saw, and not what some one else saw.

Altogether the discussion showed acquiescence in the declaration that the child should come to school to study things; in other words, there is a wide departure setting in from the old definitions of education, Prof. Jackman, of the Cook county school, pushing forward farther than any yet. It would seem that we must put our definition of education somewhat like this—*becoming acquainted with our environment*. At all events, books are certainly going to the rear—as far as being the *piece de resistance* in the school room.

Then followed a class-exercise in fractions, by Miss Beggs, of the Springfield schools. It was given to exemplify the way Supt. Balliet looks at number and figures. (By the way, one who reads the outline by Supt. B. will doubt the correctness of the common form on programs, "lessons in numbers"; and again that outline shows that Supt. Greenwood's plan of teaching a child to count up to 20,000 as he proposed in THE SCHOOL JOURNAL, Aug. 29, must be wholly unphilosophical and unpedagogical.)

Miss Beggs' method was, to exhibit a disk cut in two parts and teach the term "one-half," showing the pupils the use of figures as a language; thus with a disk for one-third, one-fourth, etc. (Our Southern brethren would have regarded with more than surprise, I doubt not, the presence of three colored children among the ten that made up the class.)

Mrs. Alice Freeman Palmer, president of Wellesley college, made some good points on the influence of the manners of the teacher. Ex-City Supt. Samuel Elliot made a good address. A chief point was that we should never have the right foundation, never have the right

atmosphere in the schools until we rewarded effort in a pupil or ceased to give honor to the brilliant memorizers.

But yet, while it was an occasion when "New Education" ideas had the day, teachers were heard to complain that they are yet required to make just the tale of bricks in the arithmetic and grammar classes, as heretofore, and that their work is measured up by the glibness with which the pupil can repeat definitions, etc.

Boston seemed to be about the same as on other occasions. The sidewalk on Tremont street was full of people waiting for the cars; just as many capable, intellectual looking women abound, often carrying a solid book, and almost always with eye-glasses. Boston always strikes me favorably.

A. M. K.

## Method and Means:

### THE MEASURE OF TEACHING ABILITY.

By F. W. PARKER, Cook County Normal School (Ill.)

There is one fact that every teacher should thoroughly understand. This fact seems to be a very simple one; it is indeed so plain and ever self-evident that no one would care to deny it, and yet it is practically denied by a great number of teachers. The proposition may be stated as follows: *A teacher's ability equals the method and means he uses in teaching*; or, placed in opposite order: the methods and means of teaching, including text-books, apparatus, and all appliances used by a teacher, equal that teacher. In other words, the knowledge and skill of a teacher determine the means he applies. A poor teacher, for instance, cannot properly use intelligent methods, or good text-books. There never was a text-book made on earth so poor but that it equaled some teacher's skill. A good text-book, or a true method, and a poor teacher are incongruous. It is generally far better for a poor teacher to have a poor text-book, than to have a good one. The poor teacher struggles in vain to apply the best method. No teacher is poor if he is really learning to teach. There are teachers who are only equal to the "A, B, C" method. It is true, every teacher may, by earnest striving, rise higher, but now, at this day and hour, teachers are absolutely limited by their own teaching skill, to that method which equals their powers.

Thus a great many teachers are absolutely limited, by their ability, to the spelling book. The quality of spelling books ranges in degree, all the way from the crudest kind, up to a point where the spelling book, by a process of evolution, is gradually merging into a language book. Each degree of progress meets the wants of certain teachers who are only equal to that stage of progress represented by the spelling book which they must use.

The dreariest drill in grammar marks a certain stage of progress. It is a question, then, of grammar teaching in its lowest form, or nothing at all. Now, almost every teacher will agree in the theory that progress in the art of teaching, is only limited by the unrealized possibilities of human growth; that the line of progress in human growth is infinite. History teaches this, and one has only to look over the pages of the history of education to understand how crude the beginnings were, and from these crude beginnings better and still better teachings have been evolved.

Text-books show this from the *Orbis Pictus* of Comenius, one great and epoch-making text-book, up to the best language-books of to-day; from the old, blue-backed spelling-book of 1787, up to the finest language-book printed in 1891. Indeed, along every line, history shows that continued progress has been made; that thoughtful teachers have evolved and are now evolving better methods.

Pestalozzi was one of the greatest educational reformers the world ever saw, and yet to-day no one would dream of using the devices and means that Pestalozzi used at Yverdun in the way the great reformer used them. After all the progress of all the past ages, we can safely conclude that the best methods now in use are

but crude beginnings of that which shall be. "Eye hath not seen, nor ear heard, neither has it entered into the heart of man, what God has laid up for those who love Him."

Within the last century, immeasurable treasures of truth are ready to be applied for the development of the human being. All these vast treasures are to be brought by the mediation of the school teacher, and laid at the feet of the little children, as were the treasures of the Wise Men brought to the manger at Bethlehem.

Within twenty-five years, more practical progress in methods of education has been made in the world, than in all the centuries previous. More books have been written in English on education within the last twelve years, than in all the previous centuries. Great purposes bring great thoughts. It is God's law that man's insight into truth is entirely controlled by his motives in the salvation of man. The common school proposes to save every child to the uttermost. By salvation here, I mean, of course, temporary salvation.

It is out of this sublime motive, as it becomes more and more fixed in human beings, that is being evolved the means and methods of carrying out this divine plan. Every stage of progress in the past; all the priceless treasures of science that now await the mediation of the teacher in the education of children and the salvation of man; every means now being used in the education of children; the countless teachers searching for the truth, all point unerringly to a truth so important, for every teacher to believe—that education is really in its incipiency compared to that which shall be. The teaching that will be in one hundred years will be as much better, as the teaching of to-day is compared with that of a century ago. "Now, we see through a glass darkly," but dark as it may be, comparatively in our visions of the future, there is every evidence of progress which should develop the most profound faith in better means and methods, and every teacher should be profoundly inspired by that faith, and under its inspiration all teachers should seek earnestly to realize more and more of the possibilities of human growth.

But the strongest delusion which weakens faith and obstructs progress is the settled feeling which seems to pervade believers in fixed ideas that, somehow or other, "the end is attained, the best has been found, and that there is little or nothing more to be discovered; that, although the past has been one succession of steps in advance, to-day we have reached the end; that what we do to-day is the culmination of all human growth." When we look this curious idiosyncrasy in the face, and when we repeat aloud that there is little more to be done for the education of man, it seems too monstrous, and at the same time too foolish, for the deliberate judgment of any human being.

Criticise a teacher who has a fixed method, no matter how good it may be in itself, and you feel at once from the teacher's manner, that he feels insulted by the suggestion that he can do better. When Horace Mann said in his earnest, honest way to the teachers of Boston and Massachusetts: "You can teach little children better; there are better methods; you can treat children better," the mighty giants of fixed ideas rose in their wrath and would cast him out; their indignation was boundless, yet all he said to the notorious 'Thirty-one,' was: "You might learn something more if you would; your methods are capable of improvement." The abominable egotism of these masters kept back progress in education in America for fifty years.

Think of it; here is a statement one never puts into words, yet it is often expressed by acts: "I have the true method; the work I am doing to-day cannot be improved." A statement more ignorant, more untrue, cannot be made, and still if we judge by deeds it is a controlling feeling on the part of many teachers.

The desire for something fixed, complete, finished, is the desire which seems to dominate the masses of unthinking human beings. There is but one consistency in this world, and that is the consistency of everlasting movement towards the right and the true.

Some one like Horace Mann tells teachers that there is something better in education, and tries to prove it

by sound reasoning. The teachers are troubled and vexed, and fretted, thereby. "Must I move?" "Must I budge?" "Must I study my profession over again?" they cry. Then comes some great leader in fixed ideas, and calms their troubled minds: "Do not listen to such impertinence, my fellow teachers; you are all right! Shall we give up the past? Shall we consign ourselves to the troubled waters of uncertainty?" "No!" "We know; you know; I know, it is all right to keep on doing just what you have been doing. These troublesome reformers will pass away. I am an infallible guide in education, and what I say to you is true." Then the worried teachers bow down and worship the apostle of fixed ideas. Their souls are soothed with a calm that only a profound trust and dense ignorance can bring.

My fellow-teacher, whoever you are, the method you use, the text-books and appliances, the devices, are yourself. You equal them, and they equal you; if it enters your head, in feeling, if not in expression, that you are arriving at the highest consummation of human hopes; that you have the only right method, the method which you are now using, then you have ceased to be useful, and the sooner you get out of the profession, the better. You may have to use the spelling-book, to-day, because it equals you, and you are equal to it. You may have to teach the meaningless pages of a grammar and the rules and definitions that go with it, but in the name of humanity, in the name of all that is good, *do not be proud of it*; feel in the depths of your soul that what you are doing—one divine discontent with what you are able to do now is the only true content to-day—is a simple inception of a higher and better work that you will one day realize.

It is true that your pupils and your circumstances may compel you, to-day, to do a kind of work that you know to be far from right, but if you sink into those circumstances, the end of study has come for you.

The cry comes up very often from the teachers' conventions: "If I do this, I shall lose my position." "If I do this, I shall meet the enmity of the public." "If I do this, I shall violate the rules of my school-board." "Therefore, I comply, I conform." "Be ye not conformed to the world, but be ye transformed into a newness of life." If you do not see the light ahead; if no glimmer of truth is flashing into your soul; if your ideas are fixed, you are not worthy of the holy office of teacher. What we need is more teachers willing to die for the faith that is in them. If you live for to-day, if you are crushed by the circumstances of the hour, you live in vain. Only that man lives, who feels eternity pressing behind him, moving him forward to higher human life and human happiness.

Take this lesson to your heart; your work, whatever it is, poor or good, equals you; *you are your work*. Your work makes you. If that work is fixed, you are fixed. If the work moves on in the infinite line of progress, you move on. Your mission is to take a bit out of eternity, and put it into the eternity of human life.



### Attention.

By R. ANNA MORRIS, Des Moines, Ia.

Attention may be defined as the stretching out of the mind toward that which presents itself at the moment. In the school—relation, love, and sympathy are the most potent factors in gaining attention: these, aided by will power and intellectual fitness on the part of the teacher, and a desire for knowledge on the part of the pupils, will most certainly secure earnest heed. But to get these conditions—"Ah, there's the rub!" A responsive sympathy which is akin to love we *must have*. Whoever was known to listen with complacency to one whom he hated? We cannot expect children to rise above their dislikes when even older people let aversions distract them. It takes a vast amount of will power and much charity to overcome prejudice and distaste, when once they take hold of us. Sometimes teachers who are really good and kind at heart, from a false idea of discipline and ignorance of human nature, keep their pupils at a

chilly distance from them, with never a gleam of sunshine in voice or eye. Again we find teachers who, intentionally, are as indifferent to the feelings of their children as to the pegs in a game of "Nine pins." They push them over, set them up, and give them credits pro and con in a kind of a game of school with not the least care for their pride, or for their little broken hearts and wounded spirits. Whenever a teacher ceases to regard the pride and feelings of her pupils as sacred, then she should stop teaching and cease to torture herself, to say nothing of the disastrous effect upon the children.

Through the voice and especially the eye, which is the most powerful agent of expression, the teacher should let her soul flow out to the children. The acute senses of the child readily detect in a loud, harsh voice the want of self-control and sympathy, and will soon cease to give it willing heed. Inattention is rarely seen where the teacher habitually uses a cheerful, low voice, coupled with the downward inflection of earnestness. Children will not obey cheerfully commands that end with the rising inflection. Whenever a teacher's voice irritates the children she had better absolutely close her lips, and calm herself until she can trust the influence of her tones upon her school.

The future ideal school building is to be one with a spacious study hall presided over by competent directors who, at programmed intervals, send classes to the recitation rooms and receive others for study. This arrangement would very much relieve the teacher, and better the conditions for the pupils engaged in study. As it is now, in our crowded schools where study and recitations are carried on at the same time, in the same room, great care is required to protect the school from obtrusions that come from without and from distractions within.

Teachers mistake in calling out the abstract word "Attention," unless used as a command, in a calisthenic drill, or something of a similar nature. Interest must precede attention, and can be maintained only when something is held in anticipation, or is associated with that already known. An indefinite scattering of warnings such as "Now, listen," or "Some one does not hear," may mean somebody or nobody. The fact is, nobody listens to such remarks, cares for them, or feels responsible for them; they rather protect the offenders and annoy the attentive. If a child persists in distracting the attention of the class he should be dealt with privately.

If a teacher should throw a ball and expect a child to catch it, she would surely not glance away and direct it from him and then complain that he did not get it; and yet this is no more absurd than the way in which teachers sometimes question at children and then lament over their inattention. To hold attention there must be change and an element of novelty. When the body is fatigued or the brain and blood sluggish, attention is impossible; the children should be rested by healthful exercise and then they will be able to give live attention. The teacher who has himself and his work well in hand *will get the attention of his school*, in the main. 'Tis true, exceptional cases are found in the incorrigible and stupid, such as almost make the very gods themselves lament, yet, even in them, teachers can search for avenues and arouse and hold the little mind they have.



While in Syracuse lately a young gentleman came up to me and said: "This is Mr. Kellogg?" Yes. "I saw your name in the papers and felt I must come and tell you the great benefit I have derived from this paper. I was teaching in — county, and saw a copy of it. I felt that that was what I needed. I had fair scholarship, but wanted light on the science and art of education. I wrote to you for advice; you suggested going to a normal school, which I did. I am now principal of a high school and I owe you a great debt of thanks."

Such words repay for the enormous labor that has been spent in developing right methods of teaching. I feel, pen in hand, that I am at the head of an invisible company of normal students.

A. M. K.

## The School Room.

DECEMBER 5.—LANGUAGE AND THINGS.  
DECEMBER 12.—EARTH AND SELF.  
DECEMBER 19.—NUMBER AND PEOPLE.  
DECEMBER 26.—DOING AND ETHICS.

### Ten Lessons in Manual Training.

By GEO. B. KILBON, Principal of Manual Training School, Springfield, Mass.

#### LESSON III. MEASUREMENT.

In practical work, measurement precedes gauging, which was the subject of Lesson II. In this course it is placed after gauging in order that lines may be gauged on the board used in the measurement problem.



Fig. 1

gauge two lines on each side of the board. Each side will appear as in Fig. 1.

See that the pencil has a sharp point. This can be done by first whittling it with the knife making a cone  $\frac{1}{8}$  in. long as in Fig. 2.

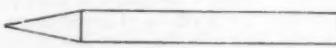


Fig. 2.

and then perfecting it with a piece of No. 0 sand-paper as follows:

Hold the sand-paper on the bench with the left hand, as in Fig. 3. Hold the pencil point on the sand-paper near to the end *a*, the fingers of the right hand being in the position shown at A, and draw the pencil toward *b* rolling it underneath while doing so, bringing the fingers of the right hand to the position shown at B, thus preserving the cone shape while sanding. Release the grasp which the thumb and the two fore-fingers have on the pencil, and, holding it by the remaining fingers, as in Fig. 4, carry it back to *a* and repeat the sanding process until the pencil point is sharp.

Lay the rule on the board, one end of it exactly agreeing with the end of the board, and the graduated edge of the rule near to one of the gauged lines, as in Fig. 5.

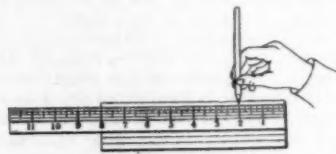


Fig. 5.

Place the pencil point on the gauged line and successively against each  $\frac{1}{8}$  in. graduation of the rule, holding it as in Fig. 5, and giving it a slight revolution to imprint a dot.

Repeat on a second line at every  $\frac{1}{8}$  in. and the work will appear as in Fig. 6.



Fig. 6.

**Problem 2. Measurement with the knife.** To sharpen the knife point, first grind it till the edge is thin. This is a difficult operation requiring skill, and a workman of experience must do it. Next put on the oil stone a few drops of kerosene oil and hold the knife blade on the stone, as in Fig. 7. Keep the ground face of the blade in perfect contact with the stone and make a few elliptical motions, as indicated by the dotted line so, adjusting the strain of the muscles in grasping the knife that the rubbing will be done at and near the edge and not at or near the back of the blade, also constantly raising and lowering the hand about  $\frac{1}{8}$  in. to cause the stoning to be effective from the extreme point of the blade along the curve of the edge to the place where the blade is of full width, that is, from *c* to *d*, Fig. 8.



Fig. 7.



Fig. 8.

It is manifest that both sides of the blade need this treatment. After a few motions inspect it to see if the stoning is being done as above directed. If not, strain the muscles differently next time according as the error suggests. Test the edge by touching it to the ball of the left thumb, or by cutting a piece of soft pine. Sometimes an edge will be inadvertently ground or stoned too thin, that is, so as to leave a feather which is shown exaggerated at *a*, Fig. 9.

This must be worn off at *a* by light stoning or by rubbing on the palm of the hand, or on a piece of leather into which has been rubbed a little lard and emery flour, or on the clean upper of one's shoe.



Fig. 9

Take the board prepared for problem 1., lay the rule on it near the third line, hold the knife as in Fig. 10 and press it vertically making points at every  $\frac{1}{8}$  in. graduation of the rule.

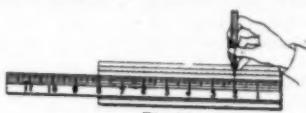


Fig. 10

See that the points made are large enough to be easily seen at arm's length, that they are of uniform size, and all at exact right angles to the gauged line.

Repeat the effort on the fourth line, placing points at every  $\frac{1}{8}$  in. of alternate inches. The object of utilizing only alternate inches is to give opportunity to rest the hand. The work will appear as the third and fourth lines in Fig. 11.

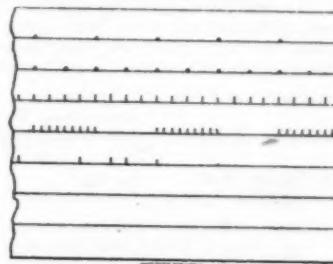


Fig. 11.

Rapid workmen may place points on additional lines. Slower workmen need not complete the sixteenths, but should do accurate work as far as they proceed.

**Problem 3. Varying Measurements.** Let the class work in unison, placing the rule on a fifth line and making measurements at the teacher's call. If the measurements commence at the left and the calls are successively 1 in.,  $\frac{1}{8}$  in.,  $\frac{1}{4}$  in.,  $\frac{1}{2}$  in.,  $\frac{3}{4}$  in.,  $\frac{5}{8}$  in. their sum will be  $2\frac{1}{2}$  in.

Place points on the remaining lines in a similar manner, calling a different succession of measurements for each line, until the entire class during a given effort reach the correct sum.

### Reading, Language, and Literature. IV.

(The course of Saturday morning lectures on the above subjects, by Mrs. S. D. Jenkins, Prof. of Art and Science of Teaching, in N. Y. College for Training of Teachers' will be reported weekly in THE JOURNAL by E. D. K.)

Every effort in learning to read should be pleasurable; in this way energy is economized and there is acquired naturally a power of attention leading to concentration, useful afterward in formal study. By this process organic growth takes place and the very nature of the child is changed.

Let us not, however, spend so much time upon how reading shall be taught as to lose sight of its highest function. The educational world is beginning to feel the beauty and excellence of our literature, the fitness and force of our language not only for expression but as a medium for training in pure thought and noble life.

The difficulty of teaching children to read is in no way comparable to the difficulty encountered in the search for suitable reading matter in suitable form. But the search must begin as soon as the child can make out simple sentences. He has understood by hearing long before he understood by reading, and for this reason the chart, primer, and first reading books, in the ordinary series, are quite below his intelligence. No one will deny that it is for the sake of literature that the art of reading is acquired, and that it is important the pupil be given, as soon as may be, enduring forms on which to exercise his newly gained power. In nothing should greater discrimination be used than in the kind of books placed in the hands of children. It is the duty of the teacher to direct the taste and confirm the habit of reading. Two forms of literary art of which the child never tires, and which

form the most perfect instrument of association between the young and the old, are the fable and the myth. He who has read the best classic fable or the most beautiful myth has begun his acquaintance with the world's lasting literature, and there will never be a time when it will cease to give him pleasure. A child in a normal condition loves imaginative stories, and those of classic origin are the best possible, when rightly presented. The nature and office of the myth, its genesis, history, and relation to the literature of to-day, must all be carefully developed. Not that reading should be limited to, or mainly consist of, the mythical, but travel, biography, and science may each claim representation. To reading, language and literature—English, because of its mother-tongue quality, must be left the office of the co-ordination of all other studies.

It would be impossible at this time to give an idea of the nature and extent of the reading selected for the boys and girls of the school of observation and practice, connected with the N. Y. College for the Training of Teachers, but a visit to the Bryson library, and a little assistance from the librarian will repay any who may be interested.

Some of the books read and re-read in connection with geography are:

"Birds through an Opera Glass,"	"Talks Afield,"
"Sun, Moon, and Stars,"	"Walks and Talks,"
"Coal and Coal Mines,"	"Scrambles in the Alps,"
"Feats on the Fiord,"	"Life and her Children,"
"Winners in Life's Race,"	"Fairyland of Science,"
"Madam How and Lady Why,"	"Views Afoot"
"Stories Mother Nature Told her Children."	

Insensibly one line of reading will pass into another, co-ordinating the whole. As will be seen, no line can be drawn between science and geography, and when we add special books to be read in connection with history and geography these will trespass at once upon the preserves of literature, notably such as:

"Literary Landmarks of London,"	"Two Thousand years Ago,"
"Literary Landmarks of Edinburgh,"	"Stories from Virgil,"
"Stories of the Persian Wars,"	"Stories from Herodotus,"
and the many biographies. Add to these the reading of	
"Life and adventures of Robin Hood,"	"Plutarch's Lives,"
"The King of the Golden River,"	"Golden Deeds,"
"The Boys' King Arthur,"	"Water Babies,"
"The Peasant and the Prince,"	"Tales of Chivalry,"
"Life and Adventures of Ulysses."	

"The gems from the "Little Classic" series are presented as occasion may require. The story of "The Dog of Flanders," has been read so many times that Nello and Petrasche seem real friends, and more than one child has been led through it to search the art galleries for pictures by Rubens. "The Great Stone Face," from the same series, another favorite, received an added charm when the children learned that Ralph Waldo Emerson, was concealed in one of its characters, and the reading is looked forward to with delight in the search that is to be made for the hidden New England boy.

Not only must books be guarded against that pervert the taste, but also those that consume the time without elevating the thought. Pains must be taken to introduce only those literary friends whose acquaintance will be found desirable.

Lead the reader to classify that read as to time and subject. His myths carry him back to the time when the phenomena of sciences were not understood, when credulity was characteristic of the race, as it is to-day of childhood. Curiosity, a crude form of love of learning, gave rise to questions as to the origin and cause of things, and answers and explanations were given in the form of stories. In this way the existence and presence of air, fire, the ocean, clouds, etc., were accounted for and these stories were called myths. The period was named the Myth-making Age; here he has his first time-mark and landmark, from his instruction in geography and history he has learned what parts of the earth were earliest peopled and why. The works of Hawthorne, Kingsley, Scudder, and Ruskin, that deal with these tales and times are mentioned and certain types read in class.

Later comes the great Homer whose language was Greek, and who gathered up these beautiful sources and preserved them in oral song and verse. This makes the second epoch and is named the Homeric Age. Those who care to know more of it are directed to Church's *Stories from Homer*.

In the same manner, the Age of Pericles, the time of Virgil, the Birth of Christ, and the Age of Chivalry are discussed. The mounted knight in armor, taking a vow to protect the weak and helpless, to speak truth, to take up the quarrel of those oppressed, finds faithful portrayal in Church, Lanier, Hale, Tennyson, Scott, and Lowell.

The age from Dante to Shakespeare may become known to the children through "Chaucer's Stories Simply Told," "Tales from Chaucer," "Chaucer for Children," "Prince and the Pauper," "Heroes of Chivalry," "Stories of the Italian," "Poets and

Artists." From Shakespeare to the present, the literature for children is so abundant that no outline would seem to be necessary.

To conclude, there is nothing better for culture than the thoughtful study of inspiring and delightful authors, with the thought directed toward the intrinsic value of the subject-matter and to the admirable forms of literary expression. Whatever else may come and go in our schools, the careful reading of helpful books should "go on forever."

In the next lecture a transition will be made from reading to language and grammatical construction.

## Lesson on Quartz.

By GUSTAV GUTTENBERG, Pittsburgh, Pa.

No pupil is without his piece or pieces of quartz; larger pebbles should be broken to show, besides the worn surface, the fresh fracture.

A piece of glass, about 2 inches square, will be very convenient to try the hardness of the stones; if glass can be obtained that is ground on one side, it will be found very useful as a "streak plate" when the iron ores are to be examined.

*Observation.*—Find the hardest or one of the hardest stones in your collection. (Let them discover how to find that out.) Is this stone harder or softer than glass? "It is harder, for it scratches the glass." It is not necessary to cover the whole glass with scratches to find the hardness of one stone; a little scratch a quarter of an inch long tells the story just as well, and leaves the streak plate good for many more scratches.

Many people believe that nothing less than a diamond will scratch glass, but you have found a stone that scratches it almost as well. Let me see how your hard stones look (a chance to detect mistakes). This hard stone is called quartz. What can you tell me about quartz? "It is very hard; it looks like glass; it is white, gray, yellow, clear, etc.; has no taste, no odor."

*Experiment.*—Does it dissolve in water? In acid? No! It cannot be easily destroyed. If one of the boys has a big knife, let him try to strike fire with it and a piece of quartz, using a sharp edge of the latter. He should succeed.

*Thought questions.*—If you are given a piece of marble and a piece of quartz, how could you tell one from the other? "By finding which is harder; by trying which one will be dissolved in acid." (Put the pupils to a test, giving some of them two specimens to distinguish.)

Why is it that so many quartz pebbles we find are smooth and round? Have they always been so? The scholars may or may not find a correct answer. What would happen if a piece of some rock should be broken loose, high up in some mountain, and should get into a mountain stream which would carry it down, make it roll over its rocky bed, tumble down cascades and waterfalls, and push it on for many miles until it gets into a river, where it is either rolled into the sea, or is pushed out somewhere towards the shore, at a time of high water and left there when the water becomes low again? "Its corners and edges would be worn off and it would become at last a rounded pebble."

And if a piece of hard mineral like quartz, and another of a softer mineral like marble, both of about the same size, should begin the trip down the mountain stream and the river together, would you find two pebbles of the same size, one of the quartz and one of marble? Probably among the various answers one of the scholars will hit near the truth by saying the marble, on account of being softer, would be worn down much more.

Why are so many pebbles of quartz found and so few of limestone or marble?

If we should undertake, next vacation, a trip to Lake Superior and visit Agate bay about twenty miles northeast of Duluth, we would find cliffs of a dark brown or gray volcanic rock, called trap rock (it is about as hard as marble), and in it here and there we would find imbedded an agate, which is a kind of quartz. Near these cliffs we find a beach all strewn with pebbles, among which there are many agates, but there are very few or no pebbles found of the trap rock. Who can explain this? (This question for the older pupils.) The water wears away the softer rock and grinds the fragments by continually moving them, throwing them towards the beach, rolling them back again. Only the harder stones imbedded in the rock can withstand this action and are not ground up, but merely rounded and smoothed, almost polished by it.

*Information.*—Quartz is one of the most plentiful of minerals; it forms a part of granite, the principal part of puddingstone. Sand and sandstone consists of small grains of quartz. (Prove it.) It occurs sometimes in clear crystals, transparent glass; these are called rock-crystals; they are used in jewelry under the name of Rhine-stones, Alaska diamonds, etc. Amethyst is purple quartz; smoky quartz; Cairngorm stone is quartz with a brown or almost black tint; milky quartz is milk white; rose quartz is a pink variety; yellow quartz is sometimes called false topaz. All these varieties resemble somewhat glass; or we might say glass resem-

bles quartz. Indeed quartz is the most important ingredient of glass. Quartz alone cannot be melted, but by mixing it with soda, or lime, or lead, or certain other substances, or several of these things together, and heating it strongly, it will melt and form glass.

There are other varieties of quartz which have a waxy appearance, such as flint, which was used in starting the fire before matches were invented, while the Indians and other savage nations made arrow heads and spear-points from it. The beautiful banded agate, the onyx, the red carnelian, the bluish chalcedony, are among these varieties. Jasper is a dull, impure quartz, generally containing iron; it is red, yellow, or brown, sometimes green with red spots, when it is called blood-stone. Probably you can get some jasper and flint for your collection.

Some quartz contains water, such as the geyser stone and siliceous tufa, which is deposited in the basins and outflows of many geysers; also the beautiful precious opal, the fire opal, milk opal, and the wood opal, which is petrified wood. Thus quartz is a most interesting mineral with many varied forms and various uses; we should become well acquainted with it so as to recognize it wherever we meet it.



## Home-Made Charts. (Language.)

By ANNA B. BADLAM, Principal of Training School, Lewiston, Me.

**Material.**—A quantity of brown manilla paper sheets, two narrow strips of wood as long as the width of the paper sheets, six or eight stout tacks, two screw rings, a rubber marking pen (to be found at any wholesale stationer's), a bottle of black and one of red ink.

**Design.**—To preserve in a permanent form much of the development work and the drill work that come with every class.

### WORD-BUILDING.

Page 1: Arranged for word-building, exercises in phonics, and spelling, also sentence-building.

Example :

at
c at
m at
f at etc.

N. B. The initial letter of each word in red ink.

Successive pages arranged to give similar exercises with such "key-words," as

Page	1	2	3	4
an	in'	it	and	
etc.	etc.	etc	etc.	
5	6	7	8	
all	old	ear	eat	
etc.	etc.	etc.	etc.	

**Method:** 1. Lead the class to recognize the fact that the "key-word" is found in each new word. 2. Give special attention to the initial letter in each case, and train the class to enunciate each sound clearly and distinctly. 3. Have each word spelled by sound and by letter only when it can be *grasped as a whole*, or recognized *at sight*. 4. Have each word used in a simple sentence. 5. Weave the words built on any "key-word" into a story and make a pause at each word of the "key-word" vocabulary; as each special word is woven into the story, have some child in readiness with the pointer to find the word for the class; if a mistake is made, allow some child to correct the first child and to take his place at the chart.

### STEM-BUILDING.

Page I. Arranged to teach the formation of words from stems, the various suffixes and prefixes, so that the stem being known, much of the time usually expended in learning to spell isolated and unrelated words may be saved.

Example :

Do your *work*, and *do* it well,  
Whether you *write*, or *read*, or *spell*.

N. B. Words in Italics to be written in red ink.

### LESSON I.

work	=	work
work + s	=	works
work + er	=	worker
work + ed	=	worked
work + ing	=	working

N. B. Write all additions to the stem in red ink.

**Method:** 1. Call on some child to pronounce and spell the stem. 2. Call on individual pupils to form new words by the addition of some letter or letters to the stem. 3. Question each pupil as to the manner in which he made the new word from the stem, whether by adding *s*, *er*, *ed*, or *ing* to the *stem word*. 4.

Have each new word used in a simple sentence. 5. Use for a "busy-work" exercise by having the lesson copied, and original sentences containing the words written upon the slates.

### LESSON II.

spell	=	spell
spell + s	=	spells
spell + ed	=	spelled
spell + er	=	speller
spell + ing	=	spelling

### LESSON III.

read	=	read
read + s	=	reads
read + er	=	reader
read + ing	=	reading

read (*irregular* form for past time, with change of pronunciation, not spelling).

### LESSON IV.

write	=	write
write + s	=	writes
write + e + er	=	writer
write + e + ing	=	writing

wrote (change of sound and spelling in irregular form for past time).

### LESSON V.

do	=	do
do + ing	=	doing
do + es	=	does

(change of pronunciation.)

N. B. Have various sentences used to illustrate use of *do* and *does*; *do not* and *does not*.

### LESSON VI.

#### CONTRACTIONS.

do not	=	don't
does not	=	doesn't
n (o) t = n't		

N. B. Give various board exercises, and allow the pupils to change the original expression to the contraction and *vice versa*.

Successive pages arranged to develop special prefixes and suffixes, the *double consonant* before adding *ing* in such words as *run*, *nod*, etc., various examples of *contractions*, special cases of *irregular* forms of *action words*, and illustrations of special rules in spelling as: *come, coming; day, daily; try, tried; shelf, shelves; stone, stony; step, stepping; shop, shopper, etc.*

### WORDS OF SIMILAR SOUND.

Page 1.

pane		pain
fare		fair
two		to
	too	
pare		pair
	pear	

**Method:** Have the first form of each word pronounced and carefully spelled. Use one form of the word many times in sentences, original with the class, before attempting the other form or forms of the word.

N. B. Use the board for all sentence work.

Successive pages to illustrate such difficulties as would trouble children in using words of similar sound, but of different meaning, when we demand written work from them.

### CONTRASTS.

Page 1.

long		short
rough		smooth
thick		thin
tall		short
tender		tough etc.

N. B. The best German text-books teach always by contrast. Write the contrast of each word in red ink.

**Method:** Have each word and its contrast used in simple sentences. If possible, have objects or pictures of objects at hand to illustrate the contrast of quality.

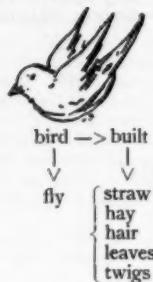
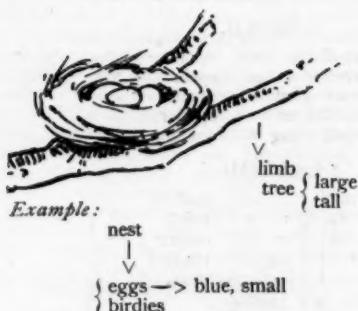
Successive pages to illustrate such words as children would be apt to need in conversation, or writing, when dealing with qualities of objects.

### ASSOCIATED WORDS

**Design:** To supply the class with all necessary words for a vocabulary on any subject.

**Material:** Various bright-colored pictures from such toy books as "Domestic Animals," "Farm Animals," and any collection of pictures suitable for language lessons.

Page 1



## INCIDENTAL.

sit	mother	teach
keep	feed	learn
warm	bugs	to fly
hatch	worms	to sing

Successive pages to develop needed vocabularies on any subject.

*Method:* 1. Develop by skilful questions and reference to the associated words a simple oral story from the class. 2. For "busy-work" allow the children to write sentences from the vocabulary. 3. Select the list of sentences that will make the most connected story and write it upon the board for the class to copy. 4. Read for contrast any list of unconnected sentences that the class may be its own critic, as to what is good, what is poor, in the work presented.

N. B. Other ways of adding valuable exercises to a chart of this description will present themselves to each teacher according to the needs of her class. These directions aim only to be suggestive, not exhaustive.

## Teaching Composition.

By HENRY G. SCHNEIDER, Grammar School Principal,  
New York City.

It is a common practice of primary teachers, when taking up language work with "chalk," for example, as the object talked about, to ask for "the story of the chalk." The scholar says, "The chalk is white; it makes a mark on the board." As a consequence their scholars even in the higher grades consider every composition as a "story." They fail, or their teachers fail, to impress upon their minds that a composition may be a description or an explanation as well as a story. Would not the same result be obtained by asking for a *sentence* about the chalk? The reason I mention it is this: I entered a fourth grade grammar class to give a lesson on Minerals, Quartz being the subject, and almost every composition handed in after the lesson was headed, "Story of Quartz." After a brief explanation, on my next visit, of the difference between a description, a narration, and an explanation, and the necessary questioning, I divided the class into three divisions and asked one to describe the quartz pebble shown, to tell a *story* about it, and of the third I required an explanation of it.

We had asked first its *shape*. They said it looked like an ellipse; "but an ellipse is a plane figure; the pebble is a solid." What do you call the solid (holding it up) that looks like an oval?

"Ovoid," came from all parts of the room. Then what ought the solid like an ellipse, be called? "Ellipsoid," ventured one and all agreed that the pebble might be called ellipsoid in shape. They felt it and said it was hard. They tried to scratch glass with it and succeeded in making a deep mark. They tried to mark it with a knife and failed. Dropped in water and in acid it would not dissolve. Cracked with a hammer the shining surface of the crystals was seen. Therefore, the children said it had the properties of quartz; hence they agreed it was a quartz pebble. Now write a descripton of it. Here is one that was written:

"The white pebble shown was an ellipsoid; the outside was rough and dulled; we could not scratch it with a steel knife. We could make a long mark on glass with it. The pebble did not dissolve in water or acid. When cracked with a hammer the broken edges seemed to be shining crystals which we saw to be crystals under the magnifying glass. So we call this a quartz pebble."

"Now," said the teacher, "I will tell the story of the pebble, if none of you can do it." Well, Anna, what can you say?

"Here I am, held up by a great tall woman," said a little white stone; "a, number of children are around me. They say I am dull-white in color; they say I am like an ellipse in shape; they drop me in water and in acid; they scratch me with a knife, but I am too proud to yield. They rub me against the window-pane made of my cousin, quartz sand, but I make a deep mark where I kiss them. 'O, it scratches glass it must be quartz,' say the class. Now they take a hammer and break me in two; they see my crystalline surface and say 'I must be quartz.' And the teacher tells how she found me on the shore last vacation, picked me up, and brought me to school for her lesson."

As an *explanation* of the quartz, the teacher draws out the facts of how waves break off bits of quartz cliffs; these fall at the base. (Can they dissolve?) Then there they lie, rolled over and over by each wave; what does this do? It knocks off corners and makes them round. Teacher illustrates by getting a square block or stick and cutting off edges into octagonal and sixteen-sided prism until round stick is the result.

At last our pebble lies there in the sand, no longer a quartz fragment but a round, white pebble.

What has been taught? 1. Three kinds of composition—description, narration, and explanation. 2. Orderly inquiry into properties of the pebble. 3. The correct drawing of inferences from observed facts, and lastly their orderly array into a good composition.

Do not these results prove that our teachers *can* secure variety in composition in this way?

## A Phonetic Exercise.

By E. E. KENYON, Brooklyn, N. Y.

The children had learned the marks for the long and short vowels and knew the powers of all the consonants.

The teacher wrote the following on the board to amuse them:

ā ē ī ī ū ū

The children sounded them and pronounced them "funny words." The teacher pronounced them no words at all, erased them in apparent disgust, and tried again:

ā ē ī ī ū ū

Sounding these, the children discovered three words, which the teacher erased, saying:

"What can I do with these others to make words of them?"

The suggestions she received resulted in *hen* and *bun*.

Erasing, she wrote:

ā ē ī ī ū ū

*At* and *it* being dismissed as good children, who did all their work, the rest were "kept in" and shown how to dress themselves properly. Results, *let*, *hot*, *nut*.

Next the vowels appeared, in single column, without any marks.

Teacher—This *may* be—?

Pupils—It may be ā or ē.

Teacher—It *is*—? (Supplying the mark.)

Pupils—It is ā.

And so on, down the column, giving all their long sounds.

Teacher—This was ā. It *is*—? (Prefixing an l.)

Pupils—It is lā.

L having been prefixed to all, the pupils pronounce, lā, lē, li, lō, lū.

Teacher—This was lā. It *is*—? (Prefixing a c.)

Pupils—It is clā.

This column is completed and pronounced—clā, clē, clī, clō, clū.

Pupil—Clā sounds like a word.

Teacher—Adding the y. Now it *is* a word.)

The c's were erased and p's substituted. Again y had to be added to make plāy.

## Supplementary.

## Indoor Amusements.

## AN ART GALLERY.

The following device for a sociable or school entertainment of any kind, always proves interesting, and is very easily carried out. One teacher raised a good share of a library fund in this way with very little trouble.

If there is a small side room that can be used for the art gallery, so much the better, but a corner or side of the school-room curtained off will answer very nicely. A rod or a strong line run across the room will serve for a foundation for the drapery, which may be of colored cheese-cloth, cretonne, flags, or anything available. The drapery must be caught up in the center for an entrance, and a Chinese lantern hung for a welcome. Make the interior as pretty and tasteful as possible with plants, flowers, flags, fans, and Chinese lanterns. Some of the art treasures may be disposed on a little table at the side of the room, and others hung on the walls. Two or three girls, dressed in some fanciful costume of colored cheese-cloth should be chosen to show the pictures.

Now for the pictures. Of course the whole thing is a burlesque, though from the catalogue which is presented at the door, the visitor has reason to expect a fine collection of pictures.

At an entertainment of this kind that caused much merriment, the following pictures were shown. These are given as suggestions. The teacher and pupils, will, no doubt, think of many others equally good.

"A View of Havana" was a cigar. "A Bridal Scene" was nothing more or less than a bridle hung up on the wall. "Sweet Sixteen" is a charming title, and the picture was easily made by sixteen pieces of candy. It may be well to warn the visitors not to "sample" these or the number will dwindle rapidly.

"Before Tea" and "After Tea" were two companion pieces represented by the letters S and U made from pasteboard. "A Family Jar" was a Mason quart jar. "A Member of Noah's Family" was a ham gracefully suspended on the wall. "The Light of Other Days" was a tallow candle. "A Roll on the Grass" calls up a frolic of merry children, but it really was a breakfast roll reclining on a plate of grass.

The condiments pepper, salt, vinegar, and mustard constituted "The Four Seasons," and "A little Indian," was really a little Indian (meal). "A Ruin in China" explained itself, and "Time and Tide" was a clock and a piece of rope with a conspicuous knot in it.

If the pupils are clever about drawing they may print or write the catalogues, decorating the outside with sketches. The title of each piece should be attached to it, also the number, so it can easily be found.

Adelaide L. Rouse.

#### WHAT AM I?

(The object of this game is to secure freedom of expression and to cultivate the perceptive faculties. The teacher personates some object and is questioned by the pupils. The game may be utilized in geography, history, and literature.)

Are you an animal? No; I am not an animal.

Then you have no life? No; I have no life.

Are you made of wood? Sometimes I am made of wood.

Are you useful? Some people find me very useful.

Do they dig you out of the ground? I am never dug out of the ground.

Are you ever found on trees? No; I am not found on trees.

Do boys have you? Boys are always glad to have me.

Do girls and ladies have you? Yes; sometimes girls and ladies have me.

Are you ever made of metal? Oh, yes! I am often made of metal.

Can you make a noise? I always make a noise; sometimes a very loud noise.

In the spring do boys make you of birch bark? Yes; boys in the country make me of birch bark.

Do engines have you? Yes; every engine has me.

Do conductors and policemen have you? Yes; conductors and policemen have me.

Are you useful to the postman? The postman finds me very useful.

You go hunting sometimes, don't you? Yes; hunters often take me with them.

The men in steamboats talk to each other with you, don't they? Yes; if it were not for me many accidents must happen.

They put you on dangerous rocks at sea, don't they? Yes; I am sometimes put on rocks at sea.

Don't you call a great many men to work, in the morning, and at noon? Yes; I say to the men, "Time to go to work!"

In China the men who live on rafts use you to call their ducks home at night, don't they? Yes; the Chinese call their ducks with me.

Then are you made of ivory? Yes; I am made of ivory. Ask me my name.

Is your name 'Whistle'? Yes, my name is whistle. E. A. F.

#### A RHYMING GAME.

A pupil selects a word, and gives a word rhyming with it. The other players guess it, giving the definitions of the words they think of, and not saying the words. It is played in this way:

"I think of a word; it rhymes with *girl*."

"Can you throw it?"

"It is not *kurl*."

"Is it a jewel?"

"It is not *pearl*."

"Is it a title?"

"It is not *earl*."

"Can you close it?"

"It is *furl*."

The words need not be spelled alike if the sound is the same, as the object is not to make correct poetry.

Dear Sirs:—I have just received the Primary number of THE SCHOOL JOURNAL, which seems to me to be one of the best of the many good numbers you have issued. Prof. C. B. WIE.  
State Normal School, Florence, Ala.

## The Educational Field.



Dr. J. L. M. Curry.

Dr. Curry was born in Georgia, in 1825. His paternal ancestors were Scotch and English; maternal, Welsh and French. He graduated from the university of Georgia, 1843, and Dane law school, Harvard university, 1845. Mercer university, and university of Georgia gave him the degree of LL.D. He was three times a member of the legislature of Alabama where he advocated taxation to pay the state debt, internal improvements, and a system of public schools; elector for Buchanan and representative in Congress, 1857-1861; member of Confederate congress, and one year in the army, serving on Gen. Jos. E. Johnston's staff and as Lt. Col. of cavalry; president of Howard college in Alabama; has declined more than a dozen offers of presidencies of colleges and universities; was professor of English, of philosophy, and of constitutional and international law in Richmond college, Virginia, and now the president of the board of trustees; in 1881, appointed general agent of the Peabody education fund; in 1885, minister plenipotentiary to Spain. On his resignation after three years' service, with highest personal commendation from Secretary Bayard and Pres. Cleveland, he re-entered the Peabody work, which had been held open for his return. In 1890, he was elected a member of the J. F. Slater fund and made chairman of the educational committee, so that now, being a member of both boards, he is practically charged with the administration of these two great funds. A bold, outspoken friend of the free education of both races, he has spoken all over the South and has addressed more legislatures than any other American ever did. He has written much for newspapers and reviews, is the author of "Constitutional Government in Spain," and "Gladstone" and is now preparing an important work, semi-political, semi-historical. Catholic in his religious views, he is a decided Baptist and among his literary works is a little book on "Establishment and Disestablishment or Progress of Soul Liberty in America," which has attracted much attention in England and the United States.



The Central Ohio Teachers' Association was held at Dayton the past month, Mr. C. L. Van Clave, of Troy, president. Miss Mary Gordon, training teacher of Columbus, conducted a recitation in Primary Reading; Miss Jennie M. Langan, of Dayton, read a paper on "What do we owe our Pupils?" There was an interesting discussion on "What Can be Done to Make the Teachers More Efficient School Workers?" Superintendent J. W. Mc Kinnon, Supt. E. B. Fox, of Xenia, Supt. C. W. Bennett, of Piqua, and Supt. Cox, of Chillicothe, joined in this discussion. At the evening session Prof. Geo. W. Howland, ex-superintendent of the Chicago schools, delivered the annual address. The subject chosen was, "Our Calling."

After showing that the teacher's life is one of self-sacrifice to a large extent, for which he received the thanks of men who had been benefited by the teacher's instruction, the orator said that "the great want for our schools to-day is a broader, truer scholarship in their teachers."

Among the resolutions offered was one to the effect, "that the thousand teachers of Ohio protest against the inadequate recognition of the American public schools—which now seems probable—by the Columbian Exposition, and respectfully but earnestly requested that a suitable building be erected and furnished with the most approved school appliances, in which building, besides the usual exhibition of school work, there shall be actual teaching in the various grades by well qualified teachers, and that thus the educational dignity of this nation be maintained by bringing

to the notice of our national guests the fact that our educational development has kept pace with our phenomenal material growth."

### Massachusetts State Teachers' Association.

The Massachusetts Teachers' Association met at Boston, November 27. The address of Prof. Paul Hanus, of Harvard college, dealt with the study of education:

"Professional training for the teacher includes:

(a) *Scholarship*, which is the fundamental quality of his training and which he seeks in common with the non-professional student.

(b) *A knowledge of psychology*,—not text-book psychology, but such a knowledge, obtained through observation and reflection, of the mind's development and processes, as enables the teacher to enter into the child's mental life and to learn how to facilitate the accomplishment of a difficult task; how to promote a gain in will power, to inspire new impulses, or the development of new affections. Such a knowledge of psychology readily yields a method of instruction.

(c) *A knowledge of the history of teaching*. The account of the achievements in any particular human activity furnishes a range of ideals for comparison, for approval or disapproval, for modification, for rejection or adoption in the light of to-day. Incidentally many useful rules for guidance in the actual work of teaching are discussed and assimilated. No previous age has ever attained to the enormous range of activities which characterize modern society. Yet the present is not independent of the past. "If we ignore the past we cannot understand the present or forecast the future."

(d) *A knowledge of educational theories and practices*. While education is not to be studied within the limits of any system of pedagogy, no thoughtful person is likely to underestimate the value of a knowledge of the philosophical convictions of the great workers, theoretical and practical, in the domain of education.

The modern student of education, whether teacher or not, will realize that the need of just ideals, of definite aims, is felt to-day as it never was before. What are we doing to make our aims definite and our work efficient? Are we satisfied with the old school curriculum, or can we save both time and strength by appropriate eliminations and changes in its subject matter? Shall we specialize early in the pupil's career? What principles are deducible from the sciences to which the educationist turns for guidance? Who is to blame, the community, the teacher, or the pupil, for failure to achieve desired results? What do we know of contemporary educational reforms at home and abroad? How shall we solve the problems of physical training, manual training, moral training?"

The address of Pres. Hyde, of Bowdoin college, pointed out ethical resources for the teacher:

"The first is discipline. Punishment is moral vaccination. It inflicts a lesser to avert the greater evil of a lawless and wilful life. To withhold merited punishment from a child is to become a partner in his present guilt, and to inflict on him a lasting wrong.

The second ethical resource is personal influence. That passionate devotion to ideal excellence which is the soul of virtue does not come to the child in the abstract. The ideal must be incarnate in some person whom he admires and trusts and loves. The power to come near to a child; to see life as he sees it; and to impart our ideals along the unresisting lines of sympathy and fellow-feeling, is the secret of successful moral influence. The man must become in sympathy a boy who will help boys to become men.

The third resource is institutions. The family is the mightiest moral influence we have. The breaking up of homes is the breaking down of character. The school, apart from direct moral instruction, can do much for the morals of its pupils. By enforcing promptness, order, obedience, neatness, and thoroughness the school can induce that subordination of private caprice to public authority which is the foundation of morality. The state, by defining and punishing crime; and still more by evoking loyalty and devotion, is a potent factor in moral education.

The fourth resource is literature. Books are stereotyped ideals. The librarian should not merely be the custodian, but the interpreter and introducer of books to the reading public.

The fifth ethical resource is philosophy. Nothing is so fascinating to young persons as thinking and talking about what is the wisest and best thing for them to do. Now this is the very essence of philosophy. Go to a boy with a ready-made scheme of the universe and try to force it upon him by authority or argument and he will bristle with as many objections as a porcupine has spines. But that is not philosophy. That is dogmatism. And dogmatism is what above all else the youthful mind abhors. Cut and dried descriptions of virtue and duty will make no practical impression upon the average healthy boy or girl. If, however, you can start with the concrete objects and facts of everyday experience, arouse their interest in the practical problems which these objects present; let them think out for themselves the duties and the temptations to which these concrete situations give rise; let them reason out for themselves the reasonableness of virtue and the absurdity of vice; let them trace out the sure reward that accompanies virtue and the equally sure and swift penalty that must always follow vice, and you will enlist upon the side of righteousness and virtue the enthusiasm and ardor of their wills; the curiosity and the conviction of their minds."

The address of Mr. Frank A. Hill, master of the Cambridge English high school, showed the relation of primary and secondary education to collegiate in a graphic form.

A capital talk on "Nature Studies" was given by Miss S. E. Brassill, of Quincy:

"Nature studies should do for the pupil three things: First, they should give to him a knowledge of facts in regard to the world in

which he lives. Second, they should train his powers of observation. Third, they should develop in him a love for nature. This last is of the greatest importance and is the test of the work done.

Pupils in the primary grades should be taught to recognize and name the objects studied. They need particular and exact names; not technical, but correct common names. They should study parts and qualities of objects, with the uses, or habits, growing out of these. They should make simple comparisons for differences and resemblances. These kinds of work move along parallel after the first lesson.

In the lowest grades, the work begins with oral conversation lessons. As busy-work the names may be copied for written form, spelling and writing; later, whole stories embodying facts to be remembered. These stories, on the blackboard or chart, may be used as a reading lesson, the objects may be used to illustrate number problems, thereby fixing oral names. Moulding and drawing should be used as means of expression. Collections may be started.

The teacher who knows the subject scientifically needs to guard against telling pupils too much. The teacher should begin her preparation by studying specimens in the same way that pupils are expected to begin their work. Reading may follow such study, but should not precede it, and is best if not too technical."

Supt. Thos. M. Balliet, superintendent of Springfield schools was absent, but his paper on "Teaching Fractions and Percentage" was read:

"1. Numbers must not be identified with objects, neither must they be identified with figures. Figures are concrete symbols, and not abstract numbers. They form the technical language of arithmetic; and teaching figures is, therefore, giving a "language lesson."

2. Number is in its very nature abstract. The distinction of "concrete" and "abstract," as applied to numbers, is a psychological distinction, not a mathematical one; it belongs to pedagogics and has no place in a text-book on arithmetic. It refers to the two modes under which the mind conceives, or "thinks," numbers.

3. The general notion of number—of "one or more than one"—must be sharply distinguished by the teacher from the idea or knowledge, of individual numbers. The former is gotten by intuition" (whatever the origin of the "intuitions" may be), the latter by analysis and synthesis.

4. The analyses and syntheses by which a knowledge of individual numbers is gained in the elementary work must be made objectively. It is not sufficient that the mere concept of the number be gained objectively—the thought processes themselves must be performed concretely.

5. Hence in a subject like fractions, it is not sufficient to give a pupil the general idea of a fraction objectively; he must be taught objectively the thought processes of addition, subtraction, multiplication and division, as also of reduction, etc.

6. After he has been made familiar with these thought processes in the concrete, he must be taught the language in which they are expressed, and must be trained to do ready thinking in this symbolic language, i. e., thorough drill in figure work must follow the objective work.

The same is true of percentage.

7. In the Springfield schools, pupils, during the first four years, learn to perform all the processes of fractions concretely, and are taught all the "cases" in percentage. Besides this, they make the easier steps from the concrete work to the figure work, and deduce their own rules for the figure work. I have worked out a similar plan for the teaching of decimals.

8. In the fifth year, they drop objective work in these subjects almost entirely and receive thorough drill in the figure work.

9. In the first lessons on percentage the rates correspond to the fractions.

$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}$ , etc. are taken and taught as aliquot parts of numbers. Later the smaller rates, such as 5%, 10%, etc., are taken up when the step from the concrete work to the figure work is made.

10. Experience has shown me that percentage, and likewise decimals, can be taught with ease and advantage the third and fourth years of school. Their more difficult applications, of course, belong to the more advanced grades.

This was followed by an interesting class exercise, conducted by Miss Lizzie A. Beggs, principal York St. primary school, Springfield, exemplifying the principles stated by Supt. Balliet. She was loudly applauded.

Mrs. Alice Freeman Palmer discussed "Influence of the Teachers' Manners."

"I don't put training first. In a teacher I want character, high and noble, first; next, manners; third, learning; fourth, professional training.

I know that is heresy in this presence.

"The manners of our teachers everywhere, in the street, in the church, must show us all the rest.

"Often a flower on the desk, slippers or shoes that have no noise in them, a pretty brooch, will do more than anything else.

"Your teachers want to cultivate a sweet and strong voice. Some of us cannot have it, because our great-great-grandfathers did not give it to us.

"The more I go about among the schools the more I begin to realize that there are thousands of little folks who have as their highest ideal in grace, in morals, in character, in dress, their teacher.

"If I were hiring a teacher for children who were dear to me, I would not hire him if I did not feel that he was a gentleman in his life, and manners, and instincts, and imagination.

Samuel Elliot, ex-City Supt. of Schools, discussed "Moral Standards."

"All means are far inferior to a change proposed in the moral standards of the schools.

"Call it reform, call it merely recognition of what has been latent or unconsciously employed; a change of standards is essential to moral training.

"Effort, rather than achievement, should rank highest. What a child tries to do, and perseveres in trying to do, against physical or intellectual disadvantages, is worthy of all honor.

"The brightest pupil is not the best.

"Treating pupils on this principle of effort leads to another standard of high importance. Their sense of justice needs to be trained, not only for school days, but for all after life; and to deal with them as they are generally dealt with, ignoring their exertions and their capacities, is to blunt their sense of justice and to pervert the point of view from which study and every work of man is to be truly seen."

"Lastly, and including everything, is the standard of character rather than knowledge. It is character that constitutes the power which children should be taught to strive after, and to use for others as well as themselves."

"Turn back ambition, selfish struggle, delight in superficial prizes of every kind, and bring forward the deep and gracious powers of our nature into their rightful relations. Let the pupil be regarded as we may reverently believe he is regarded by God, and there will be no lack of moral training."

The twenty-fifth annual session of the California Teachers' Association will be held at Riverside Dec. 28-31. Among the subjects to be considered are the following: "What can the University do for the Teacher?" by Earl Barnes, Leland Stanford, Jr., University; "Agassiz as a Teacher," by David S. Jordan, president Leland Stanford, Jr., university; "The Object of the Public School," by Mrs. E. B. Purnell, Sacramento; "Toil and Toilers," by Miss Emily A. Rice, State Normal School, Chico. A generous allotment of time has been made for discussions on the subjects of "Examination and Promotion"; "City and County Supervision," and "High School Work." The subjects of "Science," "English," and "Primary and Kindergarten," are considered separately. The well known names of Supt. Alex. E. Frye, of San Bernardino, and Editor Fisher, of *Pacific Journal of Education*, are among those appointed for discussion. Homer B. Sprague, of Berkeley, will lecture in the evening session. It is noticeable that the names of eight ladies as authors of "papers" appear on this program. Does this argue that California is a golden state for woman in education?

The interesting case of the little deaf, dumb, and blind girl, Willie Robin, who was brought before THE JOURNAL readers last summer (July 11) is receiving world-wide attention. She is a member of the Kindergarten School for the Blind, Perkins Institute, Boston, Mass., and is still struggling for a knowledge of the outside world through the sense of touch. There is much involved in this case to the students of psychological facts, that will make her a focus of thought and attention through the future years of her development, and not only as an intellectual phenomenon will her peculiar case be followed. There is a deeper question involved: she has never yet learned of anything connected with the Deity. All religious ideas have been kept away from her. She has never heard a word that would lead her to make a single inquiry on religious subjects. She has been to church, but it means nothing to her, and she has no idea why people go there. Mr. Anagnos, director of the kindergarten, proposes to keep her in the dark about all these things, and thus to ascertain if a human being, with a mind as quick and alert as is hers, will come, unaided, to question as to any First Cause of the world about her. The question as to whether there is planted in every human soul an innate idea of a God, will find an answer in the life of this little girl, as soon as she becomes sufficiently familiar with the outside world to come naturally to question the *why* and the *how* of the first beginning of things.

R. J. Hewton, M. A., principal of the academy, Sherbrooke, Quebec, in speaking to the teachers at the recent state association in Vermont said he brought with him the greetings of the teachers of Quebec province, and in addition came to the Green Mountain state to express the good wishes of the land of the Beaver and Maple Leaf, but most of all, because he brought to the adherents of that beautiful flag that has proudly floated for over a century from Canada to far Mexico, greetings from that older flag which for a thousand years has braved the battle and the breeze, and on whose glorious folds the sun never ceases to shine. It was right that sister associations should exchange greetings, but it was especially right that they, who had gone out from the old home, and had developed a system of constitutional government worthy of universal admiration, should exchange cordial good wishes with those who remained in the old home, and had there developed a system of representative government, which he as a Canadian believed to be still more admirable. It was a promising sign of the times, that they, as teachers, could meet on a common platform under two such flags; flags that were the emblems of the Anglo-Saxon race; flags that for centuries had been, individually and collectively, the banner of liberty and human advancement.

This happy expression of fraternal feeling between teachers in different countries, voices the oneness of sentiment that is ever the result of common work for the uplifting of the human race.

The Kindergarten for the Blind is a favorite charity of Boston, Mass. A doll show has just been held in that city for the benefit of this school, which is constantly growing in numbers, usefulness, and popularity—in everything except money.

The readers of THE JOURNAL are requested to send us clippings of educational movements (with name of paper) whenever they see them. They will aid the editor of the *Field* and he will be grateful for their aid. Let every one send in contributions.

## Correspondence.

What can I do best with busy-work in a school of about forty pupils? I have a class of six learning to read; eight in first reader, six in second reader, twelve in third reader, and ten in fourth reader. I feel determined to get out of the rut in which they have been running. While I have a pretty good idea of a course of study, larger than the "three R's" (being an Oswego graduate), I do not clearly know how to give occupations that will educate. Shall I give occupation anyhow and leave the educative results to take care of themselves.

J. B. C.

To be able to lay out occupations for your school will require labor and thought, but it will repay you. "Busy-work" includes occupations the pupil will carry on at his seat with but little, if any, oversight from you. To do this with your five classes will demand the aid of some of your older pupils. Busy-work is *doing* of some kind: (1) Writing on slate, paper, and blackboard—(a) copying of what you have put on the B. B.; (b) reproductions; (c) description of pictures; (d) of objects. (2.) Drawing. (3.) (a) Stringing straws, beads, tablet laying, paper folding, picture cutting, scrap-book work, spool-work, cardboard embroidery, slat-plaiting, neat weaving, sewing, pease-work, paper flower making, use of tools.

You should have "Love's Industrial Education" as a guide, for this field is a much harder one than "hearing" reading lessons, etc., because it is a new field. We warn you not to give up the thought of getting out of "the rut" in which most of our schools are plunged. "Busy-work" means a good deal more than keeping the children employed; it means education of a higher order than you reach by hearing lessons.

I would be greatly obliged if you would tell me how to conduct a class in supplementary reading. I do not understand how we can have supplementary reading with but one book or paper.

N. A. S.

You are right. It is difficult to understand, how a class of fifteen or twenty can be said to have supplementary reading with one book. Still if the requisite number of books cannot be had, ingenious teachers have found ways to get a variety in the manner and matter of reading, with only one book. Here is one way. One pupil can be called on to read "at sight" standing in front of class while the others listen, ready to reproduce orally if called upon, what has just been read, or to read themselves. By frequent changes in pupils in this manner of reading, the interest can be maintained, if the book is simple enough for "sight" reading. No class would like to sit and hear a reader stumble over new words, and in this way of conducting a reading exercise the lesson is not supposed to have been prepared in class recitation beforehand, and the reading should be of a simpler character than usual grade work.

Another way to get a variety in reading is to select a newspaper story and paste it upon stout paper; cut it into as many slices as there are pupils, numbering each portion of the story, allowing the class to look a few minutes at their papers, before they are requested to turn them face down (to prevent inattention). Call upon the pupils to read by their numbers, which will keep them on the alert, if the numbers were not distributed in regular order.

But the best thing to do, is to induce your "board" or trustees to give you sufficient supplementary reading to supply each pupil with a book. If you do not succeed in this, get up an entertainment and buy them yourself.

Why do the clouds become black before a thunderstorm?

The color of clouds depends somewhat on their density, but mainly on their relative position to the sun. A rain storm a few rods in diameter has a dirty brown color; if a mile or more in diameter it is a dense greyish brown. Clouds illuminated on the side towards the observer are white, or white and grey; with the cloud between the sun and the observer they are white, grey, or black, according to the thickness of the cloud mass and the amount of light intercepted. If near the horizon, however, with the sun behind the cloud, the latter varies from yellow or golden to purple and black. There is no special rule for thunder clouds; the outlying flecks are usually grey, white, or golden, according to position; the mass of the cloud is black or dark grey because of its density.

TROIS ETOILES.

What is Celluloid, and how made?

R. G.

Cotton is soaked in nitric and sulphuric acid (one to two parts) a short time and then washed and dried. Then it is put into camphor and alcohol; this is heated to drive off the alcohol, and then rolled between warm rollers.

Catarrh is caused by scrofulous taint in the blood. Hood's Sarsaparilla purifies the blood. Try it.

## Important Events, &c.

### News Summary.

NOVEMBER 20.—A rumor that Lord Stanley will resign the government-generalship of Canada.—Railroads blocked with wheat cars causing a coal famine in Minneapolis.

NOVEMBER 21.—M. de Giers says a formal treaty of alliance between France and Russia is unnecessary.

NOVEMBER 22.—Many famished Russian peasants sick from eating the flesh of horses and cattle.

NOVEMBER 23.—A heavy storm does much damage in Washington and Baltimore.

NOVEMBER 24.—Death of Don Luis Huller, called the Jay Gould of Mexico, and the founder of a Mormon colony in that country.—President Carnot signs a bill to establish a board of arbitration of labor disputes.

NOVEMBER 25.—Grain blockade in Buffalo, with elevators full, and no cars to move them.

NOVEMBER 26.—Funeral of Gov. Alvin P. Hovey, of Indiana.

NOVEMBER 27.—Influenza spreading in Denmark.—A free trade treaty negotiated with Hawaii.

NOVEMBER 28.—Cyrus W. Field very ill.

NOVEMBER 29.—A blizzard in Norfolk, Va., the earliest snow-storm ever known there.—Tracy, Minn., nearly destroyed by fire.—King Christian of Denmark greeted by Emperor William at Potsdam.

NOVEMBER 30.—Rio Grande do Sul still opposes orders from Rio Janeiro.—President Montt, of Chile, refuses the large sum of money voted to certain leaders of the revolution by congress.

### THE ELECTORAL VOTE OF THE STATES.

Under the old apportionment by which the presidential election of 1888 was held, there were 401 electoral votes. Twenty new electoral votes have been created since by the admission of Idaho, Montana, North Dakota, South Dakota, Washington, and Wyoming. The states that gained votes by the census of 1890 are as follows: Alabama, 1; Arkansas, 1; California, 1; Colorado, 1; Georgia, 1; Illinois, 2; Kansas, 1; Massachusetts, 1; Michigan, 1; Minnesota, 2; Missouri, 1; Nebraska, 3; New Jersey, 1; Oregon, 1; Pennsylvania, 2; Texas, 2; Wisconsin, 1.

The states will have the following electoral vote in 1892: Alabama, 11; Arkansas, 8; California, 9; Colorado, 4; Connecticut, 6; Delaware, 3; Florida, 4; Georgia, 13; Idaho, 3; Illinois, 24; Indiana, 15; Iowa, 13; Kansas, 10; Kentucky, 13; Louisiana, 8; Maine, 6; Maryland, 8; Massachusetts, 15; Michigan, 14; Minnesota, 9; Mississippi, 9; Missouri, 17; Montana, 3; Nebraska, 8; Nevada, 3; New Hampshire, 4; New Jersey, 10; New York, 36; North Carolina, 11; North Dakota, 3; Ohio, 23; Oregon, 4; Pennsylvania, 33; Rhode Island, 4; South Carolina, 9; South Dakota, 4; Tennessee, 12; Texas, 15; Vermont, 4; Virginia, 13; Washington, 4; West Virginia, 6; Wisconsin, 12; Wyoming, 3. Total, 444.

### THE BERING SEA QUESTION.

A case of international importance was recently argued in the United States supreme court. Some time ago a Canadian sealer was seized in Bering sea and declared forfeited by the United States district court of Alaska. It was claimed that the vessel was seized more than three miles from shore and therefore without the jurisdiction of the United States. On this ground the case was appealed to the supreme court. The object of the appeal is to get an opinion as to the claim of the United States to sole jurisdiction in Bering sea.

A PLOT DISCOVERED IN RUSSIA.—Russian government has just discovered a plot for the creation of a representative assembly. The marshals in the different parts of the empire have been warned that they will be held responsible for any demonstrations against the government. Inspectors in the employ of the government make searches of the rooms of students and also of their libraries. Every book of a political character is seized. The conspirators in St. Petersburg were found to be only part of a very numerous band whose headquarters was in Moscow. About sixty members of the nobility and others have been arrested.

BALMACEDA'S SUPPORTERS TO BE TRIED.—The members of the ex-president's cabinet and a number of other Chileans who held high official positions under him will be tried for disobeying the constitution and the misuse of funds. If found guilty they will have to repay, as much as they are able, of the funds unlawfully spent during the late rebellion. Balmaceda spent \$20,000,000 to keep his power. His opponents obtained money to carry on the war from the sale of nitrates.

THE HUDSON RIVER BRIDGE.—The stockholders of the two companies that propose to build a bridge over the Hudson river at New York have adopted the agreement of the two boards of directors. The construction contract has been confirmed, and the building of the bridge will soon begin.

WAR THREATENED IN SAMOA.—The natives of Samoa complain considerably of heavy taxes. There is therefore much discontent with the rule of Malietoa. Mataafa is looked upon by the natives as the redresser of their wrongs. The chiefs who have taken up his cause were ordered to disperse, but failing to obey their lands were declared forfeited to the government.

IMPROVEMENTS IN CANADA.—It is said that an electric road will be built from Chippewa to Queenstown next spring and a new line of steamers put on between there and Toronto to run up the Niagara river and cross Lake Ontario.

ALASKA'S COAL FIELDS.—Extensive coal fields have been found in the Shumagin islands, 900 miles west of Sitka. Besides supplying the local demand, measures are on foot to place this coal in a large way on the San Francisco market next year. It is of lignite formation, as are all Pacific coast coals, and carries a large percentage of moisture.

THE WELLAND CANAL.—The secretary of the Chicago board of trade has complained to Secretary Blaine that Canadian commerce is favored in passing through the Welland canal. It is suggested that at the approaching conference measures should be taken to put citizens of the United States and of Canada on an equality as to the use of this canal.

RESIGNATION OF THE SPANISH CABINET.—The Spanish Cabinet resigned and a new one was summoned by Senor Canovas del Castillo. The crisis was caused by the financial condition of the kingdom.

CHINESE OUTRAGES.—The missionaries still suffer from the lawlessness of Chi'ne's rabbles. A few days ago well-armed bands ravaged a whole district, pillaged and burned the Belgian mission stations at Tayan and Sanchi, and massacred over 100 converts to Christianity. The station at Gehol was sacked and burned. The priest in charge of the mission, Belgian, was killed by the mob, and several other Christians were also massacred. Under orders from Pekin, all the troops available were immediately sent to the scene of the disturbances.

CUBA NEEDS SMALL CHANGE.—Trade is almost paralyzed in Cuba on account of the lack of fractional currency. The Spanish Bank, having called in the dirty rags with which the public have suffered so many years without having provided the new issue to take its place, has left the people in a great strait, particularly the poor, who buy in sums of 5 and 10 cents. The reciprocity treaty that went into effect September 1 has been bad for business. The market has been glutted with goods of all descriptions, compelling merchants to store large quantities of merchandise which heretofore had been sold from the wharf, thereby saving cartage and storage. So many apples and potatoes were received that a panic in prices was caused.

A DESPOT'S ANGER.—The Beni M'Tir tribe refused to pay tribute to the sultan of Marocco. He sent an army against them and a sharp battle was fought. After that about 100 of their women came into camp to ask the sultan's pardon and humble themselves before him. For hours they sat before his tent, weeping and crying for mercy, their faces unveiled in token of deep contrition. They asked the sultan to have mercy on their husbands, their brothers, and their children. The next day they continued their piteous wailing, and in the evening the sultan bade them return to their homes and send their husbands into camp. He comforted them with the assurance that if their tribe obeyed him and refrained from highway robbery he would not attack them again.

WORKMEN'S VICTORIES IN AUSTRALASIA.—The Parkes ministry in New South Wales was beaten recently on an eight-hour provision laying down rules for mining. The cabinet was disposed to favor it, but Sir Henry Parkes resolutely opposed it. This is not the first victory in that region. Tasmania has had a ten-hour law since 1884, and both Victoria and New Zealand have eight-hour enactments. The regulation of female and minor labor has also been practically settled. Over-time is permitted in certain industries, and at busy seasons by special arrangement with the chief factory inspector. All kinds of trade are under government regulation. Stores must close at a certain hour except those for the sale of food, drugs, books, and certain other articles. Encouraged by these events the workingmen in Great Britain propose to have a labor party in parliament.

## Of Special Interest to Pupils.

### MODERN ARMS AND AMMUNITION.

The most powerful guns of the present day weigh 110 tons, and throw a shot of solid steel 16 inches in diameter, and nearly four feet long at a velocity of 2,079 feet a second. When tested recently, one of these guns sent a shot through 20 inches of steel armor, 8 inches of iron, 30 feet of oak, 5 feet of granite, 11 feet of concrete, and 3 feet of buck. Comparatively, a locomotive weighing 200,000 pounds would have to spin along the tracks at a rate of 135 miles an hour to strike a blow equal to that projectile.

An English officer was present when the French maneuvers were made a few weeks ago when the smokeless powder was used. He says: "Again and again, I found myself in a position where I could hear volley after volley, field guns, too, sometimes being fired, probably within 800 yards of me, and yet I gazed intently for minutes trying in vain to discover the whereabouts of the firers.

Noise is ever deceptive, and one minute you think the men must be close, but a puff of wind or some such cause may make the sound appear to come from miles off. If the men are at all hidden who fire, and are stationary, it would seem almost impossible to discover them at, say, 800 yards."

What may be done with high explosives is illustrated by the use of ecrasite in Austria. In 1889 an 8 1/4 inch shell, weighing over 300 pounds, and containing nearly sixteen pounds of ecrasite, perforated two armor plates, each four inches thick, and exploded in a third plate. Ten shots completely destroyed an old masonry fort at Olmutz.

A novel apparatus for warfare is a German idea. It consists of a small portable round steel tower made to carry a single gun, which can be easily operated by two men. It is transported in a low carriage drawn by three horses abreast, and when it is unloaded it is run off on a section of portable railroad track. The weight of the whole apparatus, truck and all, is only about 3,500 pounds.

# BAD TASTE.

If cod-liver oil were as pleasant as cream there wouldn't be codfish enough in the sea.

And there wouldn't be any diseases of thinness.

What are diseases of thinness?

Consumption is the worst of them, and the best example of them. They are the diseases in which we say, not to, but of, our friend: "He is not looking well; he is thin." We feel the importance of the loss of fat, though we do not get the full significance of it.

The time to treat thinness is when it is nothing but thinness. If cod-liver oil were in every-day use as a common food, this thinness might get corrected without a thought. But cod-liver oil, though it really is a food, is medicine too; and this might limit its use even if it were as sweet as cream.

We cannot take out the taste; we cover it up. We shake the oil with glycerine till it is broken into drops as fine as water-drops in fog. The glycerine wraps itself around these tiny drops and keeps them apart; it also keeps the oil from touching the tongue. This is how the taste gets lost; and this is Scott's Emulsion.

The lost taste is more than comfort gained. A weak stomach cannot digest what it loathes.

An important book on CAREFUL LIVING will be sent free if you write for it to Scott & Bowne, Chemists, 132 South Fifth Avenue, New York.

Scott's Emulsion of cod liver oil, at any drug-store, \$1.

## New Books.

Teachers of history in all parts of the United States have become acquainted with the excellent work of Mary Sheldon Barnes, A. B., of the Oswego normal school in *Studies in General History*. They will therefore welcome her new work, *Studies in American History*, which is based on the same principle as that, in the preparation of which she was assisted by Earl Barnes, M. S., professor in Stanford university. It is a wide departure from the conventional type of historical text-book, in many respects, the topics being arranged in seven groups as follows: Geography before Columbus—1000 B. C.—1492, A. D., the Age of Discovery—1492—1607, the Age of Plantation—1607—1763, Revolutionary Records—1763—1783, the Growth of Land and State—1783—1850, the Civil Conflict and the Completed Union—1865—1891. The principal thing to say in its favor is that its aim is not to make the pupil merely a memorizer of the text, but a thinker and an investigator. It also lays a great stress on training for citizenship. This should be given a very prominent place in all text-books on United States history, for, even with all the aid this can supply, the schools will have a difficult task in converting the raw material from abroad into American citizens. Other features of the book are its vivid presentation of the history, its impartial treatment of disputed points, its grouping of related topics, its full bibliography, etc. The pupil gets an insight into the thought and feeling of the time by well chosen extracts from speeches and from the daily press, and the illustrations present to the eye many of the features of our social, industrial, and political life. The study of geography in connection with history is a feature of the volume that must not be overlooked. Discussions, collateral reading, questions that throw a flood of light on the topics, and the study of geography in connection with the narrative, will be combined in the method of those who follow the lead of this text-book. (D. C. Heath & Co., publishers, Boston. \$1.25.)

What delight boys and girls have experienced over the travels of Thomas W. Knox! He seems to have struck the vein that just suits them—not too learned, not too literary, but painting the sights and scenes in pure, vigorous English. The conducting of a party over famed lands gives a personal interest to these books not unlike that we have in a well written novel. That is the reason they are so eagerly sought after and read. Each volume prepares the reader for its successor. He grows well acquainted with the characters, and their personality is almost as vivid to him as would be that of a traveling companion. He sees with their eyes and grows in knowledge with their growth. We have before us one of Mr. Knox's books, *The Boy Travelers in Northern Europe*, being the adventures of two youths in a journey through Holland, Germany, Denmark, Norway, and Sweden, with visits to Heligoland and the Land of the Midnight Sun. The boys and their companions find plenty in the people, cities, mountains, lakes, etc., to absorb their attention, and their conversations regarding the objects they have seen is entertaining and instructive. There is a colored frontispiece and an abundance of illustrations through the volume that help to make it a very attractive one. The binding is cloth with a fisherman's boat and a castle on the front cover, and decorations and lettering in gilt and black. There are few youths who would not appreciate it as a holiday present. (Harper & Brothers, New York.)

If one could not be made into an enthusiastic student of natural history by Wm. Hamilton Gibson's new book *Sharp Eyes*, a rambler's calendar of fifty-two weeks among insects, birds, and flowers, there is nothing in this world that could make him so. The author's object is to encourage independent observation of nature, and he gives the result of his own studies from which one may learn what to look for at different seasons of the year. It has been said that what we get from a book depends greatly on what we bring it. So it is with nature—we must bring to her study a loving heart and wide open eyes and the more help from a safe guide like Mr. Gibson the better. For the spring he makes us acquainted with the first feathered songsters, the insects whose notes are so welcome at that time, the unfolding buds, the croakers in the pools, and all the other things that make up the sights and sounds of this joyous season. The gorgeous vegetation of summer with the teeming animal life have the same treatment, and an equal amount of fascinating material is gotten out of autumn and winter. Mr. Gibson's work is not scientific in the strict sense of the term; it is better—it is science made fascinating by all the art of the skilled writer and the fine discrimination and excellent taste of the artist. The drawings of country scenes, bunches of leaves, mosses, insects, flowers, and other objects that adorn the pages of this volume make the dweller in the city homesick for the hills and valleys of his youth. The book is one of the best made of the season, substantial as well as handsome. The paper is thick and smooth, the type of the best, the margins wide, the artistic initials and other adornments numerous. The cloth binding of a soft gray tint is paneled in the cen-

ter with a darker hue, decorated with rustic designs in silver and letters in gold. The back has also a handsome design. We can almost hear the exclamations of delight from the boys and girls as they receive this book for a holiday present. (Harper & Brothers, New York.)

J. Howard Gore, in a volume of 213 pages, gives a sketch of the important science of *Geodesy*. In preparing it he had access to original reports not to be obtained in any library, which makes the information contained in it exceedingly valuable. Some of the primitive notions concerning the size and shape of the earth are described, the work of Picard and others is detailed, and then the record of geodetic operations in England, France, Russia, Sweden, Prussia, and the United States is given. The work does not profess to be a critical history; that is a task to which the author will devote future years. Those who have no time to wade through the large and constantly increasing mass of literature on the subject will find in this volume the main points ably summarized. (Houghton, Mifflin & Co., Boston and New York. \$1.25.)

Those who wish to become proficient in that graceful and healthful accomplishment, horse-back riding, will find many hints in *Riding for Ladies*, the pretty little volume just published. The author is W. A. Kerr, V. C., formerly second in command of the Second regiment, southern Maharatta horse. The appliances for riding, the horses suitable for ladies, the different gaits, mounting and dismounting, etc., are each given their due amount of attention. The appendix gives directions for training ponies for children. The book should be read in conjunction with its predecessor on riding. The illustrations are numerous. (Frederick A. Stokes Co., New York. 50 cents.)

After more than sixty years of rivalry in the poetical field the popularity of Scott's *Lady of the Lake* is unabated. This argues great merit. The grand descriptive passages and the charming story make it especially attractive to the young. The edition before us is handsome, like all of the volumes of the Laurel Crowned series. It contains the author's introduction prefixed to the edition of 1830, and the notes which throw much light on the characters and events of the story. The print is large and clear and the binding blue cloth, with leaves and lettering in gold. (A. C. McClurg & Co., Chicago. \$1.00.)

A story by Le Sage, the great French writer and the author of *Gil Blas*, has just been translated by James Townsend. Its title is *The Bachelor of Salamanca* and it relates the adventures of a school-master in the indolent yet romantic land of Spain. His loves, his disappointments, and his gallantries are told in most charming prose. The character-drawing is that of a master, and we have a minute and amusing picture of society in Spain, and in the latter part of the story in Mexico, in a former century. The book is substantially bound in cloth and has many photogravure illustrations. (Worthington Company, New York.)

In the series of History Primers is issued *A Short Analysis of English History*, by T. F. Tout, M. A., professor of history at the Owens college, Victoria university. It is a chronological arrangement of the main facts of English history, and was prepared from rough notes used by the author in his classes. Used in connection with the student's reading it will be a great help in straightening out the maze of dates and names in which he is likely to become confused. There are several genealogical tables. (Macmillan & Co., London and New York. 35 cents.)

A duodecimo of 131 pages contains the story of *Pris*, a little household heroine who takes charge of her father's house after the death of her mother. She gives a good example of faithfulness to duty, until death calls her away. The picture of the death scene is touching. The story is one that will greatly interest the young people. (Roberts Brothers, Boston. 50 cents.)

Rosa Nouchette Carry is well known as the author of interesting stories, and *Averil*, her latest work, fully keeps up her reputation. It is named for a semi-invalid girl who sustains the difficult relations of step-daughter and step-sister. The story shows how patience and kindness may win the day. *Averil* helps her difficult family over many rough places, and we are glad when her unselfish effort is appreciated, and all come to a mutual understanding. The dialogue is bright and natural, and the characters are lifelike. (J. B. Lippincott Co., Philadelphia. \$1.25.)

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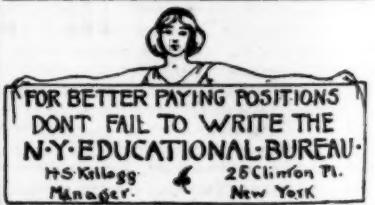
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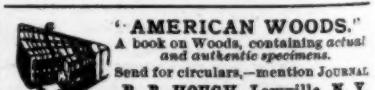
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